

Standard 1.B: Pilot Evaluations of Other General Education Outcomes The University of Tennessee, Main Campus at Knoxville

General education involves the building of basic communication and reasoning skills and the development of a broadened historical and cultural perspective. General education enhances the acquisition of understanding of both self and society, thus contributing to personal enrichment as well as preparation for local, national and global citizenship.

The University of Tennessee's (UT) program of general education has evolved over the years but the overall philosophy of general education as the foundation for successful academic study, life-long learning and community citizenship on all levels has remained unchanged. The underlying idea of general education at UT is that, while broad and basic skills are the core, these skills are not tied to any particular program or to the university itself. Thus, students are enabled to move within colleges at UT or move to other institutions of higher learning with the necessary building blocks for success.

In the past, the general education program at UT revolved mainly around course requirements, with the requirement being two courses each from English, mathematics, humanities and the arts, historical studies, social sciences, natural sciences, and foreign languages. Currently, UT has built a proposal for a new general education program that incorporates similar course requirements but has organized those requirements to coincide with stated outcomes: building basic skills and developing broadened perspectives.

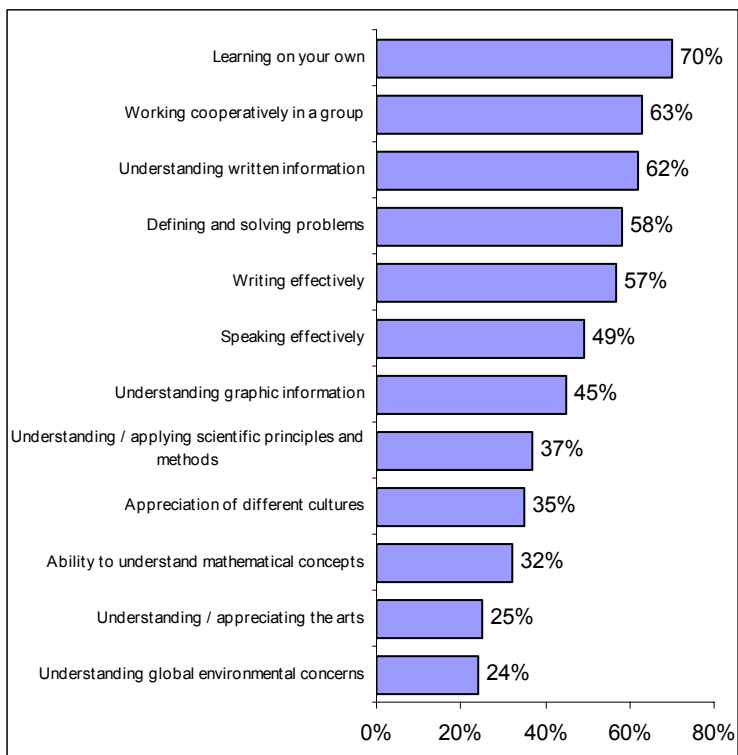
Building basic skills is important because all educated people should possess the ability to think independently. Therefore, all students should be trained to acquire, evaluate and use information. To that end, general education courses that build these basic skills are organized into three categories: communicating through writing (3 courses required), communicating orally (1 course required), and quantitative reasoning (2 courses required). General education should foster habits of self-examination in the context of family, community, society, and the world. In order to accomplish this broadening of perspective, 2 courses from each of the following areas would be required: natural sciences, arts and humanities, social sciences, and cultures and civilizations.

While the details of the general education program at UT are still evolving, one thing remains constant; the need to assess the effectiveness of the program. Perhaps some of the best information regarding the importance, usefulness and strength of the general education program at UT

would come from those closest to it – the students. However, oftentimes current students fail to understand the significance or value in general education. Recent graduates may be a more useful group to assess because they often have some work experience to draw upon when reflecting on the value of general education.

In 2001-2002, a sample of alumni from the University of Tennessee was mailed a questionnaire to inquire about their experiences as a student at UT. The questions ranged from the general, such as overall satisfaction with the university, to the specific, with questions directly assessing the student's particular major. Alumni were also asked to rate their preparedness. Specifically, they were asked to rate, along a three point scale, the degree to which their education at UT added to their abilities in several outcomes areas. These areas include: appreciation of different cultures, speaking effectively, writing effectively, understanding written information, understanding graphic information, learning on your own, defining and solving problems, working cooperatively in a group, ability to understand mathematical concepts, understanding global environmental concerns, understanding / appreciating the arts, and understanding / applying scientific principles and methods.

Figure 1
Alumni Rating of Education at UT adding Very Much to Their Abilities

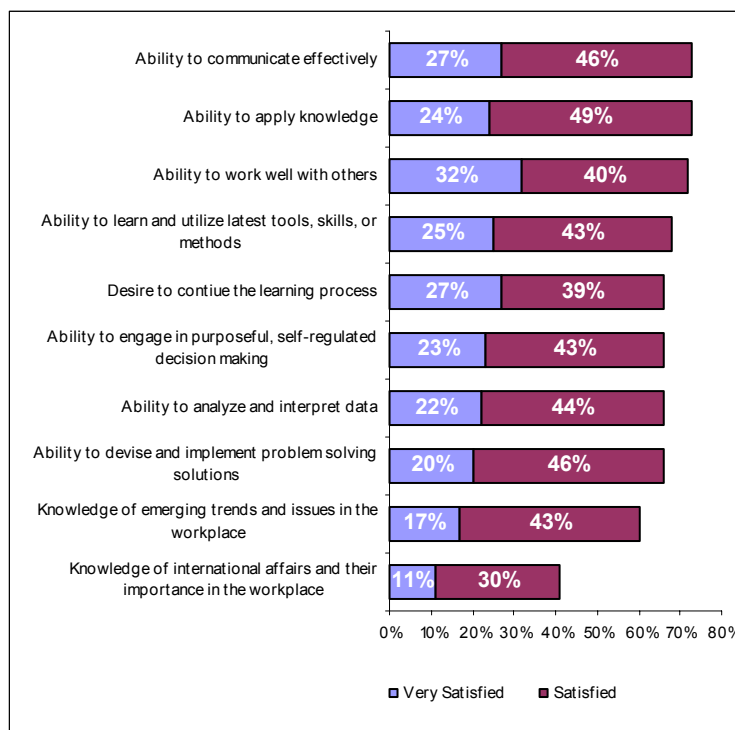


The responses on these items covered a wide range. Seventy percent of those who responded to the questionnaire indicated that their education at UT added very much to their abilities in the area of learning on your own. However, only 24 percent indicated similarly for the area of understanding global environmental concerns. The remainder of the items fell between these response rates. Figure 1 provides a graphical representation of all of the items.

Employers are also a rich source of information when examining the quality and necessity of a good foundation in general education. Not only can they list what they seek in potential employees, but they can also be asked about recruits from specific colleges or universities.

In 2002-2003, employers were asked to complete a questionnaire. More specifically, the questionnaire asked local employers about their recruitment of UT graduates. Again, a set of questions specifically addressed general education outcomes and employers were asked to rate their satisfaction, along a five point scale, with UT graduates in relation to these areas. These outcomes areas include: ability to apply knowledge, ability to devise and implement problem solving solutions, ability to analyze and interpret data, ability to learn and utilize the latest tools, skills, or methods, ability to work well with a team, ability to engage in purposeful, self-regulated decision making, ability to communicate effectively, desire to continue the learning process, knowledge of emerging trends and issues in the workplace, and knowledge of international affairs and their importance in the workplace.

Figure 2
Overall Satisfaction of Employers with UT Graduates



The five point scale included ratings of very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied. For purposes of review and analysis, ratings for very satisfied and satisfied have been combined to indicate overall satisfaction. For nine of the ten areas, at least 60 percent of those who responded were satisfied with UT graduates with 73 percent specifically being satisfied with the areas of ability to communicate effectively and ability to apply knowledge. Only 41 percent of the employers who responded were satisfied with UT graduates

in the area of knowledge of international affairs and their importance in the workplace. In addition, 32 percent of the employers who responded were

very satisfied with UT graduates in the area of ability to work with others. Figure 2 provides a graphical representation of all of the items.

While specific comparisons between the results for alumni and those of employers should not be made due to scale and question differences, it is interesting to group similar questions from both questionnaires and look at the trends that both sets of results offer. Table 1 groups the similar questions from both questionnaires. For these groupings, the overall satisfaction rating from the employer questionnaire is used against the very much rating from the alumni questionnaire.

Table 1
Question Groupings from Employer and Alumni Questionnaires

Questionnaire	Group	Very Satisfied/Satisfied (Employer) vs. Very Much (Alumni)
	Group 1	
Employer	Ability to engage in purposeful self-regulated decision making.	66%
Employer	Ability to devise and implement problem solving solutions.	66%
Alumni	Defining and solving problems	58%
	Group 2	
Employer	Ability to work well with others.	72%
Alumni	Working cooperatively in a group.	63%
	Group 3	
Employer	Ability to communicate effectively.	73%
Alumni	Understanding written information.	62%
Alumni	Writing effectively.	57%
Alumni	Speaking effectively.	49%
Alumni	Understanding graphic information.	45%
	Group 4	
Employer	Desire to continue the learning process.	66%
Alumni	Learning on your own.	70%
	Group 5	
Employer	Knowledge of international affairs and their importance in the workplace.	41%
Alumni	Appreciation of different cultures.	35%
Alumni	Understanding global environmental concerns.	24%
	Group 6	
Employer	Ability to apply knowledge.	73%
Employer	Ability to analyze / interpret data.	66%
Alumni	Understanding / applying scientific principles and methods.	37%
Alumni	Ability to understand mathematical concepts.	32%
Alumni	Understanding / appreciating the arts.	25%

For the majority of the groupings, the responses from the two questionnaires are what might be expected. If the employers indicated they were satisfied with certain skill areas then alumni indicated that their experiences at UT had helped them very much in the corresponding skill area. Keeping in mind that these groupings are not direct comparisons, there are three groupings that deserve further scrutiny. From Table 1, Group 3 indicates that 73 percent of employers were satisfied with UT recruits' ability to communicate effectively. However, only 49 percent of alumni felt that their education helped them very much in the area of speaking effectively. Granted, the employer questionnaire is covering a much broader picture (communicate) versus the alumni questionnaire (speaking). When you consider the other forms of communication listed in the alumni questionnaire (writing effectively at 57 percent and understanding written information at 62 percent) it would seem that that perhaps employers are more interested in written forms of communication. It might also suggest the need for more attention to effective speaking skills.

Group 6 from Table 1 also exhibits some interesting trends. The majority of employers indicated that they were satisfied with UT graduates in the areas of ability to apply knowledge and ability to analyze / interpret data (73 percent and 66 percent, respectively). However a third or less of the alumni respondents felt their time at UT helped them very much in the areas of Understanding / applying scientific principles and methods (37 percent), ability to understand mathematical concepts (32 percent) and understanding / appreciating the arts (25 percent). Much like those from Group 3, while the questions are similar, they are not identical. The two questions from the employer questionnaire lean toward the general by asking about knowledge and referencing data while the three from the alumni questionnaire lean towards the specific in talking about science, math, and the arts. Still, the underlying concepts that both sets of questions address are related. What is most interesting is that even though alumni indicate that UT did not help as much in these areas compared to others, employers were still satisfied with UT graduates in these areas.

Finally, Group 5 offers a slightly different perspective. While the findings from Group 3 and Group 6 focus on possible discrepancies between the skill areas, the results for Group 5 are fairly similar for the related questions from the employer and alumni questionnaires; they are all relatively low. Forty-one percent of the employers indicated they were satisfied with UT graduates' knowledge of international affairs and their importance in the workplace. Thirty-five percent of alumni reported that their time at UT helped them very much in appreciating difference cultures while 24 percent indicated the same for the area of understanding global environmental concerns. What is of concern is that the areas in this

grouping, which deal with cultural awareness and knowledge of global affairs, are a major component of the general education program. The onus falls to the university and to the general education program to offer increased exposure and promote awareness and global citizenship.

Perhaps the one thing lacking from these findings and comparisons is the inherent value of each of these skill areas. Knowing how much an alumni's education at UT helped them in a skill area or knowing how satisfied employers are with UT graduates in a skill area is one thing. Knowing that these individuals associate value with some areas over others is another. This would add more depth and dimension to the findings from these questionnaires as stand-alone tools but even more so when these tools are taken together.

The overall value and scope of general education cannot be disputed. The University will take these findings and further explore their various implications, especially in light of the ongoing development of the general education program at UT.